

Influence of Contractors' Financial Capacity on Performance of Road Construction in Kakamega County

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Abstract

The purpose of this study was to establish the influence of contractors' financial capacity on performance of road construction projects in Kakamega County, Kenya. The objectives of the study were: To establish the influence of contractors' financial capacity on performance of road construction. The study adopted descriptive survey design and the sample size of 135 (102 contractors and 33 supervising engineers) were obtained from a population of 203 employees using the Yamane (1967) formula. Stratified random sampling was applied in selecting the respondents. Data was collected through questionnaires and interview schedule and was analyzed using descriptive and inferential statistics and thematic were applied to analyze data. Descriptive statistics utilized mean and standard deviation. Content validity was used to test validity and was subjected to scrutiny by the research supervisor and discussing with lecturers. Test-retest was used to establish the level of reliability of the research tools by administering questionnaires were administered to a sample of 10 respondents (7 road contractors and 3 supervising engineers) through dividing the sample randomly into halves in different occasions. Cronbach's Alpha was used to test reliability which revealed that the alpha coefficient of 0.754; hence reliable. Tables were used to present qualitative data while themes were used present qualitative data. Inferential statistics was used to explore the nexus between the independent variable and the dependent variables. To ensure that project financing does not affect successful completion and performance of road construction project the researcher recommended that enough finances should be set aside for the project before it commences. Highly qualified and experienced road contractors with a relevant experience and technical skills should be hired to implement road projects. In order to increase job-site productivity, it is beneficial to select equipment with the proper characteristics and a size most suitable for the work conditions at a construction site.

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Road contractors should frequently hold site meetings to help in timely completion of road projects. Road contractors should regularly attend training to enable them to acquire problem solving skills and techniques so as to improve quality management of road projects.

Keywords: financial capacity; performance.

1. Introduction

In Europe, the construction industry mainly relies on financially focused performance at the project level which leads to creation of philosophies; for example concurrent construction and lean production. Others non-financial indicators considered include: Just in Time (JIT), Total Quality Management (TQM), and Total Productive Maintenance (TPM) (Yu, Kim, Jung, & Chin, 2007). A study by [1] showed that financial metrics are historical in nature and do not reflect the current status of performance of a project. A study by [2] financial measures do not have a strategic focus and are unable to provide quality data; they lack responsiveness and flexibility. Therefore, to realize optimal project performance, construction firms need to be measured, evaluated and managed. According to [2] further stated that project performance is a way of accomplishing cost and time objectives while adhering to the product specifications.

In a study conducted by [3]) showed that cost overrun and financial constraints were the main factors that affected road construction projects in Singapore. In his study [4] carried out a study on factors that affected road construction projects in Lagos, Nigeria. It was concluded that inadequate planning, delays and government approvals and regulations delayed construction of road projects. A study by [5] revealed that financial constraints and cost overruns were the key factors that affected road construction projects in Dar es Salaam. In [6] indicate that completion of road projects was greatly enhanced by use of modern equipment, technical skills by project managers, project finances and project technology. The road infrastructure accounts for an estimated 93% of all freight and passenger traffic in Kenya (Ministry of Roads, 2012). Kenya has had a tremendous growth in traffic of 8.2% annually. Kenya is experiencing traffic growth of 8.2% a year, population growth of 4.1% a year and economic growth of 6% a year; has not been matched with development of road network resulting into persistent traffic jams and conflict of different modes of transport costing the economy about 0.9% of the GNP annually [7].

For a construction project to be considered as successful it must meet certain performance measures such as timely completion, within budget as well as satisfying all the stakeholder's needs in the project. The absence of reworks as well as 'fitness of purpose' for the occupiers has also been considered as project success [8]. The Government of Kenya worked out an investment programme to recover the economy through creating employment and wealth in March 2004, and listed the development of road infrastructure as a key pillar for economic growth [9].

Furthermore, as the succeeding plan of roads construction projects, Kenya Vision 2030 was developed in 2008; and as the first period mid-term plan, the developments of all transport related infrastructure, including the road sector was stipulated in the First Medium Term Plan in 2008-2012 [9] Kenya's vision 2030 set Improvement of

Road Network, Efficiency and Safety as the development results. But despite of this, the road network has not been completed by now. The contribution of road infrastructure in economic growth of a country can easily be contributed by successful implementation of development projects.

1.1. Statement of the problem

Road construction projects are essential components in the development of a country since they form part of the key drivers of economic growth and an important pillar towards achieving Vision 2030. It is important that the contractors accomplish projects timely, within cost and as per required quality. However, according to [10] most road projects locally are not completed within the initial set targets of time due to a number of factors that impact negatively on the performance of these road projects for example availability of capital, management skills, organizational culture and technical skills among other factors. Road projects are complex in nature since they involve many parties. These include the Government which is a regular customer, road contractors, stakeholders, shareholders and regulators.

According to [11] stated that several construction projects do not complete within the planned budget, within the stipulated schedules and failing to meet the desired quality due to factors such as time inefficiency, inadequate funds and lack of advance implementation equipment. Reference [12] report indicated that there were many projects in Kakamega County which did not complete as expected due to client related obstacles, material unavailability, poor infrastructure, financial inadequacy and poor management abilities. There is slow uptake of road construction projects in Kakamega County. Failure of these construction projects will result in reduced supply of quality roads as well as a less vibrant economy which consequently contributes to a lower standard of living for residents of Kakamega County as well as increased unemployment in the County.

Local scholars such as [13,14,15] among others have studied on performance of construction projects. These scholars have focused on variables such as project management systems, procurement methods as well as project leadership skills. However the current study will narrow to roads projects in Kakamega County and will focus on the relationship between timely availability of construction resources on performance of road projects in order to determine why some projects succeed while others do not and therefore fill the knowledge gap.

1.2 Objective of the study

The purpose of the study was to establish the influence of contractors' financial capacity on performance of road construction projects in Kakamega County, Kenya.

1.3 Limitation of the study

In course of this study, the researcher faced challenges that hindered access to information and thus affecting validity and reliability of information that was to be collected by the researcher. The target respondents were reluctant to give information due to fear that the information could be used against them or their competitors. The researcher overcame this limitation by first explaining the objective of the study to the respondents before starting to collect data. A letter for data collection was obtained from University of Nairobi as proof that the

information to be collected will be purely for academic purposes.

1.4 Contractor financial capacity and performance of road construction projects

According to [16], the contractors' financial capacity is the resource he requires to smooth the progress of implementation of the construction work on site. It is made up of money at hand, bank credit, overdraft, credit purchases, and work-in-progress and invoiced amount. Financial capacity also includes resources needed to grease the daily business of the construction firm.

The management of financial capacity includes planning, sourcing, and controlling the use of financial capacity during construction. The sufficiency of financial capacity depends on the correct composition and correct financing at all times during construction. According [17] observed that it requires a determined positive effort by the contractor as mismanagement can weaken productivity and profit level. Management of financial capacity is very critical. To ensure that the level of financial capacity is maintained and that there is sufficient provision of funds to finance current assets to facilitate projects to be project completion within cost and time, there is need of establishing the optimum level of financial capacity needs of a project. Further there is need of continuous checking and monitoring the quantum of individual parts that comprise the financial capacity to ensure that the requirements are not exceeded.

Awards of major construction contracts in developing countries are skewed in favour of foreign counterparts against citizen contractors since the foreign firms are considered more technically and managerially advanced and well-organized in funds acquirement including competence. In comparison with this, citizen contractors have over the years had challenges related to inadequate financial capacity, poor project performance in terms of adhering to completion deadlines, poor work quality and capital management which has in many cases led to bankruptcy and in extreme cases, abandonment of projects. In other words, majority of citizen contractors usually do not complete construction contracts within initial contract sums and hardly within scheduled completion times. According [18,19,20] in their studies in the Nigerian construction industry confirmed that indigenous construction companies have challenges of under-capitalization.

To ensure successful project execution there must be adequate financial capacity. Reference [21] observed that monetary strength of contractors and sufficient cash flow is critical in keeping construction progress as planned. Reference [22] observed that inadequate funds lead to time overrun and sufficient funding guarantees reasonable cash flow. According [23] carried out a study on influence of payment default to contractors in the Kenyan construction industry and found that late payment of one or several certificates, underpayment or paying intermittently and nonpayment have led to cash flow hardships to contractors. This has led to late completion of projects, disputes in construction and even bankruptcy. The study recommended industry players to consider legislating on a payment specific regime just like it has happened in other countries. Others factors noted by many other studies which have been eroding financial capacity during construction include; access to credits, diversion of contract funds for other use as opposed to the project, poor project planning and control, foreign exchange fluctuations, and high cost of finance.

In road construction projects in Zambia, a study by [24] identified the most significant causal factors for performance of projects as inadequate and inconsistent release of funds by clients, poor financial management by contractors or lack of capacity by contractors. The factors that influence construction quality implementation at the execution phase in Indian construction industry include financial limitation [25]. In water projects in [26] found that client related factors such as financial capacity, owner interference, decision making ability and scope variation, and consultant related factors such as financial capacity, equipment availability and quality skilled workforce, site supervision ability, material availability, and control over sub-contractors have significant influence on project quality. Contractual capacity basically means the ability of a contractor to execute the contractual works successfully to completion. Contractual capacity can be reviewed from three main dimensions including financial, management and technical according to Ministry of Public Works evaluation procedures. This research will mainly concentrate on the technical aspect of contractual capacity of contractors.

Prequalification is the process used to investigate and assess the capabilities of the contractors to carry out a job if it is awarded to them. One of the major factors that is key to the project completion of the buildings construction project is the technical capacity of the contractor. Indicators for technical capacity include the education level, experience of the technical staff, plant and equipment and the class of registration of the contract firm according to the Ministry of Public Works evaluation criteria. Different magnitudes of work in terms of complexity and cost, requires appropriate classes of registration of contractors as well as level of technical staff qualification. Contractor prequalification is a decision-making process involving a wide range of decision criteria as well as decision-making parties and has received the attention of several researchers [27]. This is normally carried out by a client's representative and eventually leads to be selection of a contractor to carry out implementation of a construction project.

The capacity of the construction industry in many developing countries has been noted to be deficient as has been widely reported [28]. In construction, the formation of joint-venture between local and foreign contractors has been recommended by the .This is supported by [29] the integration of local and foreign constructors in construction project can facilities the transfer of technology. Studies carried out [30], indicate their indigenous construction firms in developing counties are mostly characterized by lack of capacity, confidence, motivation and long term aspiration among others. Many are struggling without basic foundation which construction firm's internal strength depends on.

Prequalification provides a client with a list of contractors that are invited to tender on a regular basis. This is the approach most currently used by many countries and in which many and different types of criteria are considered to evaluate the overall suitability of contractors. To gain entry to an approved standing list, a contractor applies initially to the client and is then assessed on grounds of financial stability, management capacity, organizational structure, technical expertise and the previous record of comparable construction (Merna and Smith, 1990). It is necessary to consider technical, management and financial criteria in the prequalification process. These comprise the applicant's permanent place of business, adequacy of plant and equipment to the work properly and expeditionary, suitability of financial capacity and experience, performance of work of the same general type and the amount of the proposed contract, the frequency of previous failures to perform contractors properly or fail to complete them on time, the current position of the contractor to perform

contracts well, and the contractors relationship with subcontractors, or employees [31].

Reference [32] in their study examined problem facing small contractor in South Africa and found that poor record keeping, lack of effective management, and lack of entrepreneurial skills are major cause of business failure for small contractors. Also [33] examined the factors affecting the performance of small indigenous contractors in Papua New Guinea; level of cash flow, financial skills, poor communication between the contractors and the client's site representative are the factors affecting the performance of indigenous contractors. In a research conducted on the assets structure of medium-sized building construction contracting firms in Nigeria and its implications on operation, Reference [33] found that the assets structure of these firms comprise of fixed assets being less than half of the total assets. This means that a greater portion of the total is current assets (held mainly as account receivables that sometimes may not be available within one year). Pre-qualification of contractors is a common practice across projects, yet the investigation on the ability of the selected contractors' performance are:- Soundness of business and workforce; Planning and control; Quality management; Past performance; Risk management; Organizational capability; Commitment and dedication.

Multiple linear regression models reveal that technical expertise, past time in business, work methods and working capital significantly impact on contractor's performance across time, cost and quality success [34]. Another basic requirement is that financial material and human resources are fully available for the implementation. In the United Kingdom there is evidence that the Construction Skills Certification Scheme (CSCS) is viewed by employers as the approach to tackling the skills crisis [35]. Amongst developing countries, skill certification was pioneered in Singapore but has recently been taken up by the construction Industry Development Board (CIDB) in Malaysia. There are categories of skills registered by the CIDB-skilled and semiskilled workers, construction site supervisors and construction managers. Applicants have to prove their competence by submitting their relevant certificates or they can be tested on site. In certain trades (such as scaffolding) they may be obliged to undergo CIDB courses before registration. In other less developed countries, where many construction workers are illiterate, higher priority would have to be given to practical, as opposed to written tests [36]. A variant on the testing and certification of individual skills is the certification and registration of subcontractors. Employers in Singapore set up a scheme in 1993 to register subcontractors, known as the Singapore List of Trade Subcontractors, or SILOTS. The objective was to improve their performance as well as to help them to provide continuous employment and better welfare on public works. The scheme subsequently received government support with main contractors on public sector projects required since 1996 to engage only SILOTS listed subcontractors [38].

Reference [39] say that in South Africa the Government has put emphasis to transform the construction sector to allow participation of emerging and small contractor but this was not properly regulated as most of these contractors did not have experience and skills to operate sustainable construction firms. Exacerbating this problem is the inadequate investment skills development across all levels in the sector; despite sufficient funding available from the construction Education and Training Authority (CETA) and specific deficiencies include inadequate recognition of prior learning and work place training. The Construction Industry Development Board (CIDB) was established in 2000 as a statutory body to provide leadership to stakeholders and to stimulate sustainable growth, reform and improvement of the construction sector for effective delivery and the industry's

enhanced role in the country's economy. Construction Industry Development Board (CIDB) regulations were that a vibrant and successful construction industry is only possible if those employed within it have the required skills and competency to function effectively in their roles. This initiative is seen by some as a mechanism amongst others to minimize the advent of insolvent situations in the construction industry.

In Kenya according to former Prime Minister Raila Odinga, as quoted in the parliament Plenary Hansard (2011) report of 25.05.2011, "the construction industry has been in shambles and faced with a number of problems. These includes but not limited to invasion by quacks and rogue practitioner, poor capacity corruption and lack of funding." To address this situation, a law has been enacted in parliament creating the National Construction Authority (NCA), a body that is mandated with the task of overseeing the regulation of the construction industry. All contractors must be registered with this authority. This saw the enactment of parliament regulation creating the National Construction Authority (NCA). Among the mandates of the NCA is to regulate and control the technical capacity of the contractors. This is to be achieved by; regulating the conduct of all stakeholders in the industry, establishing the qualification of all stakeholders, establishing the experience levels of various stakeholders in the industry, establishing the resources capacity of a given stakeholders to do specified construction works [40]. The Authority is also charged with passing regulations from time to time on the quality of construction offered by contractors and also has powers for accrediting training institutions that offers courses related to construction. However, small constructions like construction of residential homes are not catered for in the Act. When it comes to protection of the local industry from unfair competition, no foreign entity can carry out construction works in Kenya without obtaining the necessary license and regulatory approval. The enactment of the national construction authority bill will go a long way in ensuring that only capable and qualified contractors are registered for construction works. One objective the Kenya Government is to strengthen the capacity of Kenya's construction industry especially in the housing construction which is a labor-intensive activity that will create jobs for youth and the unemployed. Recent discoveries of petroleum oil, natural gas and other minerals are likely to trigger more foreign direct investments inflows. An investment in the construction industry is likely to remain robust against a background of stable interest rates coupled with the on-going government infrastructural projects necessitated by decentralization of services through devolution. Cement consumption, a key indicator in the construction industry grew by 6.9 percent in 2013 (Construction industry development policy: GOK)

1.5 Research methodology

This study adopted a descriptive survey research design. According to [41] a descriptive survey design involves describing the population with respect to key variables laying a major emphasis towards establishing the nexus between study variables. The target population of the study involved road contractors and the supervising engineers in Kakamega County. The total population for the study was 203 respondents who consist of 153 road contractors and 50 supervising engineers in Kakamega County. The number is obtained from the Ministry of Roads and Infrastructure records in the County of 2018.

Stratified random sampling approach was applied to classify all the road contractors supervising engineers in Kakamega County. This was guided by the traffic volume to achieve a reasonable representation of a sample.

Reference [42] defined stratification as a process of dividing the population members into homogenous subgroups before sampling. The strata were mutually exclusive and each element in the population was assigned to a single stratum. The target population and the sample size distribution according to category were illustrated in Table 1.1.

Table 1: Distribution of the Sample Size

Category	Number	Sample size
Road contractors	153	$153/203$ of $135 = 102$
Supervising engineers	50	$50/203$ of $135 = 33$
Total	203	135

The study utilized the questionnaire and interview guide to collect data from respondents. The approach of data collection highly depends on the research design adopted. Primary data sources were used in this study. Data was collected by administering a semi-structured questionnaire. These questionnaires utilized both open-ended and closed questions. The piloting exercise was carried out in one of the sub-counties (Lurambi) in Kakamega County. The pilot study aimed at determining reliability of the questionnaire including the wording, structure and sequence of the questions [43]. The pilot study involved 5% respondent in the population (7 road contractors and 3 supervising engineers) and they were not part of the main sample size. This means 10 respondents were chosen using stratified random sampling technique. The purpose of the study was to rephrase the questionnaire so that respondent in the main study could not have any problems in answering questions.

A pilot group was selected involving a few individuals from the target population for testing the reliability of the research instruments. Reference [44] indicated that split-half is a measure of consistency in which a test is divided in two and the score for each half of the tests are compared with one another. The study adopted the split-half approach (test-retest) to establish the level of reliability of the research tools. Similar questionnaires were administered to a sample of 10 respondents (7 road contractors and 3 supervising engineers) through dividing the sample randomly into halves in different occasions. Cronbach's Alpha was advanced by [45], the study revealed that the alpha coefficient of the ten items was 0.754; contractors' capacity on performance of road projects attained a high level of internal consistency. Descriptive statistics were used to summarize the quantitative data so as to allow a meaningful description of a distribution of the scores. The collected data was compiled, edited and coded into categories using numeric values after assessing its consistency and relevance to the study. Analysis of quantitative data was achieved using Statistical Package for Social Sciences, SPSS version 24. Presentation of analyzed data was done using percentages, mean and standard deviation by use of frequency tables. Inferential statistics was used to analyze data to explain the relationship between the variables. Pearson moment correlation was used to obtain relationship between variables (relations of above 0.7 which showed close relations). Inferences from analyzed data were made and this assisted the researcher to answer the research questions relating to influence of contractors' capacity on performance of road projects in Kakamega County. These results were compared to previous research findings from various scholars to establish the degree of relationship or accuracy of the research.

1.6 Research findings

The study sought to determine the response rate and the findings were as shown in Table 1.2

Table 2: Response Rate

	Contractors		Supervising engineers	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Returned	100	98	25	86
Not returned	2	2	4	14
Total	102	100	29	100

The finding in Table 1.2 showed that out of 102 questionnaires that were distributed to the contractors and 29 for engineers for the study; 100 and 25 respectively were successfully filled and taken back. This represents a response rate of 98% and 86% respectively. According to [46] a response rate exceeding 50% was believed to be sufficient for analysis and thus, 76.2% return rate, was considered to be satisfactory.

The respondents were asked to rate the influence of contractors' financial capacity on the performance of road projects in Kakamega County. The outcome is presented in Table 4.2. Key: 1-Not at all, 2-Little extent, 3-Moderate extent, 4-Large extent and 5-Very large extent.

Table 3: Contractor financial capacity

Statement	5	4	3	2	1
Contractors					
As a road contractor, I have access to capital sources and loans hence effective project cost management	10%	40%	30%	20%	20%
As a road contractor, I have capacity to access funding for road projects which enhances timely completion of road projects	5%	30%	60%	5%	-
My company has adequate and relevant assets which enhances delivery of quality road projects	10%	20%	70%	-	-
Strong profit and loss statements of my company indicates financial capacity which guarantees timely completion of projects	20%	40%	40%	-	-
Engineers					
Banks seek reference from the employer before advancing credit facilities for road projects.	32%	56%	4%	2. 4%	3. 4%
Contractors only bid for projects for which they have the financial capacity to undertake	36%	40%	12%	4. 4%	8%
Valuation and certification of work is completed within the stipulated period	5. 40%	36%	12%	8%	4%
Payment certificates are honored within the stipulated period	36%	6. 24%	24%	7. 4%	8. 12%

Table 1.3 shows that 40 contractors representing 40% indicated that as a road contractor, contractors who have access to capital sources and loans hence effective project cost management to a large extent and 30% cited to a moderate extent. On the other hand, 60(60%) of the contractors were of the opinion that the influence of the statement that As a road contractor, contractors who have capacity to access funding for road projects which

enhances timely completion of road projects on performance of road projects is to a moderate extent and 30% indicate to a large extent. Further, 70 contractors who represented 70% of the respondents were in agreement with the statement that my company has adequate and relevant assets which enhance delivery of quality road projects which they cited that it affects performance of road construction project is to a moderate extent as 20(20%) indicated to large extent. Finally, 40(40%) of the respondents indicated to a large extent, strong profit and loss statements of my company indicate financial capacity which guarantees timely completion of projects and another 40(40%) reported to a moderate extent.

From the findings, the respondents from the engineers' side indicated that Banks seek reference from the employer before advancing credit facilities for road construction projects hence affects project performance to the greatest extent as indicated by a mean of 4.0. Followed by contractors only bid for projects for which they have the financial capacity to undertake thus affecting performance of road construction projects to a large extent as indicated by a mean of 3.9. The respondents indicated that valuation and certification of work is completed within the stipulated period affects performance of road construction projects to a very large extent as indicated by a mean of 3.9. Finally, the respondents indicated that Payment certificates are honored within the stipulated period has affected the performance of road construction project to a very large extent as indicated by a mean of 3.7. Inadequate funds hinder the contractor from employing skilled labour and acquire materials of the right quality and quantity. Also if funds are unavailable, contractors might not procure good quality machinery. All these factors contribute to quality performance problems in the road construction industry.

Contractors' financial capacity has a crucial part to play as far as performance of road construction projects performance is concerned. One supervising engineer remarked that:

"Contractors with sufficient financial capacity tend to complete substantial works before requesting for payments. Financial capacity allows for continuous execution of works hence no time overruns are experienced unlike those with low financial capacity who wait for payments to be honored before they can carry on with the remaining work. Therefore pretty much and entirely, finances form the main resources for executing a contract" (supervising engineer 1).

Another supervising engineer said that:

"To large extent, contractors with poor financial capacity tend to delivery low quality projects and mostly at an overly extended period of time than stipulated thus not serving the purpose the project was initiated/proposed for" (supervising engineer 2).

These findings relate with the literature review where [47] identified delay in progress payment by client and financial difficulties by contractors as among the most important causes of delay in Iranian construction projects while [48] indicated that financial ability/financial arrangement and late payment of bills were amongst the major relevant factors in construction projects in Pakistan. Access to capital, financial prudence and communication enhanced performance of road projects in Kakamega County. These findings are consistent to [49] who argued that inadequate finances were a key hindrance to successful project implementation. This led to

delays in project completion resulting into increased costs and this impacted negatively on performance of projects.

The findings were in agreement with the study by [50] found that contractors in Mavoko Municipality in Kenya rely on clients to release payment for construction of houses and these led to inconvenience in terms of project delays. Inadequate funds have a relationship with other factors such as machinery, labour and material acquisition. Inadequate funds hinder the contractor from employing skilled labour and acquire materials of the right quality and quantity. Also if funds are unavailable, contractors might not procure good quality machinery. All these factors contribute to quality problems in the construction industry. Reference [51] found that contractors in Mombasa County of Kenya do not use the materials in the design documents but substitute it with local and cheap materials to save on costs and they also use unqualified people to manage their projects due to the high costs associated with professionals. Finance also influences the ability of small contractors or low income clients to seek approvals of building plans and designs.

2. Conclusion

The study revealed that 40% of the respondents indicated that as a road contractor, contracts have access to capital sources and loans hence effective project cost management to a large extent and 30% cited to a moderate extent. On the other hand, 60% of the respondents were of the opinion that the influence of the statement that As a road contractor, contractors who have capacity to access funding for road projects which enhances timely completion of road projects on performance of road projects is to a moderate extent and 30% indicate to a large extent. Further, 70% of the respondents were in agreement with the statement that my company has adequate and relevant assets which enhance delivery of quality road projects which they cited that it affects performance of road construction project is to a moderate extent as 20% indicated to large extent. Finally, 40% of the respondents indicated to a large extent, strong profit and loss statements of my company indicate financial capacity which guarantees timely completion of projects and another 40% reported to a moderate extent.

3. Recommendations

Road construction firms need to have a reliable working capital base and should only be awarded contracts based on their financial capabilities and technical resources at their disposal. However contractors could improve their working capital by forming public private partnerships with financiers who may be willing to finance big construction projects. On the other hand construction companies could establish a bank for construction industry that could provide them with access to credit at reasonable interest rates to improve their operating working capital. On the other hand the government should ensure consistent disbursement of funds. To overcome the issue of delayed payment the government should come up with a policy that sets timelines for payment of monies due to the contractors and suppliers of goods and services. This policy should also prescribe penalties for delayed payments and should apply on goods and services supplied to both the government and the private sector owners of projects. To ensure that project financing does not affect successful completion and performance of road construction project, enough finances should be set aside for the project before it commences. This will ensure that lack of finances or lack of steady flow of finances is avoided. At the

estimation stage experienced engineers should be employed to prepare estimates, so that estimates and the project cost do not vary. Stakeholders, financier should also support the project construction, so that financing is not stopped as the project proceeds.

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4. Appendices

Appendix A: QUESTIONNAIRE FOR THE ENGINEERS

Contractors' Financial Capacity and Performance of Road Construction

1. To what extent do you agree on the following contractors' financial capacity influencing the performance of road construction projects? Tick appropriately. 1-Not at all 2-Little extent 3-Moderate extent 4-Large extent 5-Very large extent

Table 4

Statement	5	4	3	2	1
There is adequate availability of finance by the contractors which affects timely completion of projects					
The total number of assets owned by contractors affects quality management of road projects					
Total number of assets owned by contractors serve as security hence contractors' access to loans and other credit facilities for timely completion of road projects					
Contractors' total number of liabilities indicates ability to access credit facilities which enhance cost management.					
The contractors' profit and loss statements indicate the ability to access finance which helps in project cost management					

2. To what extend do contractors' financial capacity influence performance of road construction in Kakamega County? Tick appropriately. 1-Not at all 2-Little extent 3-Moderate extent 4-Large extent 5-Very large extent

Table 5

Statement	5	4	3	2	1
Banks seek reference from the employer before advancing credit facilities for road projects.					
Contractors only bid for projects for which they have the financial capacity to undertake					
Valuation and certification of work is completed within the stipulated period					
Payment certificates are honored within the stipulated period					

1. To what extend do contractors' financial capacity influence performance of road construction in Kakamega County?

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2. To what extend does contractors' technical skills influence performance of road construction in Kakamega County?

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3. To what extend does contractors' equipment holding influence performance of road construction in Kakamega County?

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4. To what extent do contractors' management skills influence performance of road construction in Kakamega County?

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5. What are other challenges that face road contractors in the implementation of road projects?

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6. What measures can contractors put in place to improve performance of construction in Kakamega County?

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